

REMARKS

The Official Action mailed August 7, 2003, has been received and its contents carefully noted. Filed concurrently herewith is a *Request for Three Month Extension of Time*, which extends the shortened statutory period for response to February 7, 2004. Accordingly, the Applicants respectfully submit that this response is being timely filed.

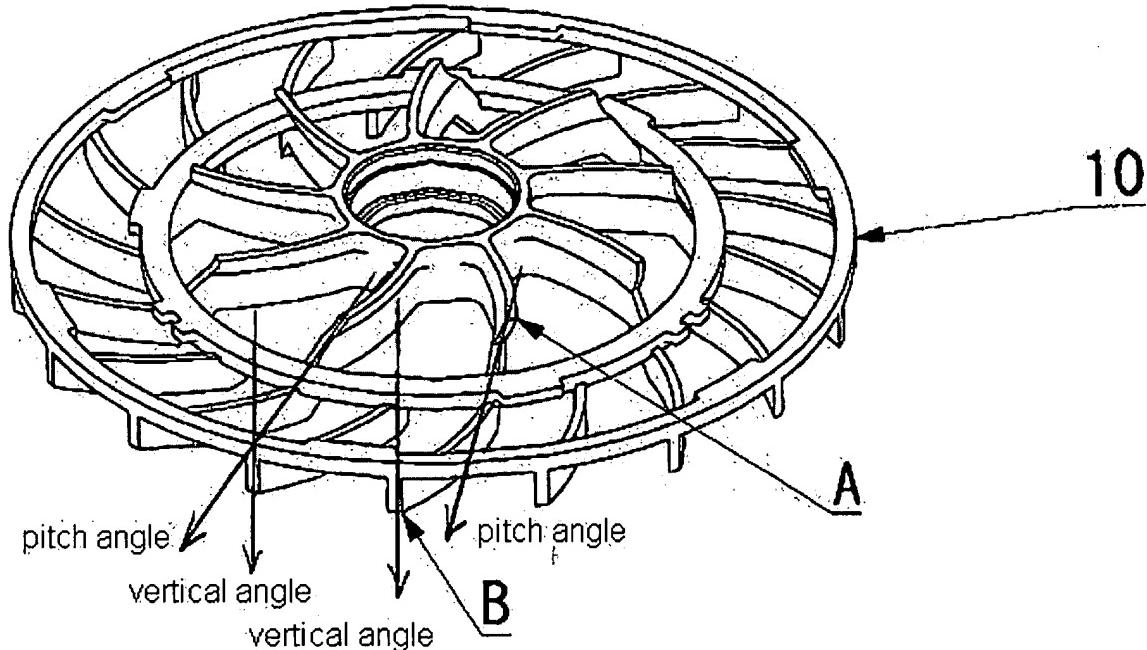
Claims 1-7 were pending in the present application prior to the above amendment. Claim 1 has been amended to better recite the features of the present invention, claim 3 has been amended to correct a minor typographical error, and new claims 8-11 have been added to recite additional protection to which the Applicants are entitled. The Applicants note with appreciation the allowance of claims 2, 3/2, 5, 6/3/2 and 7/5 (page 4, Paper No. 08042003). Accordingly, claims 1-17 are now pending in the present application, of which claims 1, 8 and 10 are independent. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested.

Paragraphs 4-6 of the Official Action reject claims 1, 3/1, 4, 6/3/1 and 7/4 as obvious based on the combination of U.S. Patent No. 5,583,746 to Wang and U.S. Patent No. 5,979,541 to Saito. The Applicants respectfully submit that a *prima facie* case of obviousness cannot be maintained against independent claim 1 of the present invention, as amended.

As stated in MPEP §§ 2142-2143.01, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the

references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In order to better describe the amended features of the present invention, the Applicants have provided (below) an expanded view of the inner portion (A) and outer (peripheral) portion (B) of rotor fan 10 from Fig. 3. Note that the blades of the inner portion (A) are disposed at a pitch angle, and the blades of the outer portion (B) are disposed at a vertical angle, which is different than the pitch angle. As such, the blades of the inner portion (A) are adapted to move air axially (up and down on the page), and the blades of the outer portion (B) are adapted to move air radially away from the axis of the rotor fan 10.



The prior art, either alone or in combination, does not teach or suggest all the features of the independent claims, as amended. The Official Action concedes that "Wang does not teach the fan having a two step inverted saucer shape, a raised central portion of the heat plate, a stator coil substrate, and the rotor blades pushing air in the radial direction" (pages 2-3, Paper No. 08042003). The Official Action relies on fan blade 72 of Saito to allegedly teach these features. Also, the Official Action notes that the Applicant's arguments "that Saito does not teach different angles at the inner and outer stepped portions of the blades is not persuasive because the limitation is not claimed" (page 4, *Id.*, emphasis added). In response, independent claim 1 has been amended to recite that an inner portion (A) of a blade of a rotor fan is set at a first angle (pitch angle) to move air in a direction of rotational thrust (axial direction), and that an outer peripheral portion (B) of the blade of the rotor fan is set at a second angle (vertical angle) to move air in a radial direction. These features are supported in the specification at paragraphs [0019], [0030] and [0044] and in Fig. 3, for example.

Wang and Saito do not teach or suggest at least the above features of the present invention. As noted above, Wang does not teach a fan having rotor blades pushing air in the radial direction. Saito does not cure the deficiencies in Wang. As shown in Fig. 7, Saito appears to disclose a fan blade 72 having a large diameter part 722, and a small diameter part 723 with a stepped portion 721. The cross section of fan blade 72 shows a substantially constant angle of the blade. Unlike the present invention, the fan blade 72 of Saito is not disposed in two different angles, one pitched, and another vertical, where one portion of the blade moves air in an axial direction and another portion of the blade moves air in a radial direction. Nothing in Wang or Saito teaches or suggests how or why one of ordinary skill in the art would be motivated to change the large diameter part 722 of the Saito fan blade 72 such that it is angled in a vertical direction such that the fan blade 72 would be specifically adapted to push air in a radial direction. Therefore, Wang and Saito do not teach or suggest that an inner portion of a blade of a rotor fan is set at a first angle (pitch angle) to move air in a

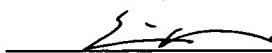
direction of rotational thrust (axial direction), and that an outer peripheral portion of the blade of the rotor fan is set at a second angle (vertical angle) to move air in a radial direction.

Since Wang and Saito do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

New claims 8-11 have been added to recite additional protection to which the Applicants are entitled. Independent claim 12 is directed to a rotor fan where an inner portion (A) of a blade of a rotor fan is set at a first angle (pitch angle) which is adapted to move air in a substantially axial direction, and an outer peripheral portion (B) of the blade of the rotor fan is set at a second angle (vertical angle) which is different than the first angle and is adapted to move air in a substantially radial direction. Independent claim 8 combines the features of allowable claim 2 with the above-referenced features of claim 12. For the reasons stated above and already of record, the Applicants respectfully submit that new claims 8-11 are in condition for allowance.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,


Eric J. Robinson
Reg. No. 38,285

Robinson Intellectual Property Law Office, P.C.
PMB 955
21010 Southbank Street
Potomac Falls, Virginia 20165
(571) 434-6789